

1 36. A consistent method of executing simultaneous operations on
2 a linked data structure having at least one element, the method
3 comprising the steps of:

4 performing any first phase operation task of each of the
5 simultaneous operations in a first phase using
6 parallel processes;

7 developing a set of serial operations during the first
8 phase; and

9 performing any second phase operation task of each of the
10 simultaneous operations in a second phase, the second
11 phase operation task including at least one of the set
12 of serial operations.

13 37. The method of claim 36 wherein at least one of the
14 simultaneous operations includes an element insertion operation,
15 the first phase operation task of the element insertion
16 operation being performed on an unlocked portion of the linked
17 data structure.

18 38. The method of claim 36 wherein at least one of the
19 simultaneous operations includes an element deletion operation,
20 the second phase operation task of the element deletion
21 operation being performed independently of navigation of the
22 linked data structure.

1 39. The method of claim 36 wherein the first phase operation
2 tasks are asynchronous and use existing links to navigate the
3 linked data structure.

1 40. The method of claim 36 wherein the first phase operation
2 tasks of more than one of the simultaneous operations are
3 completed before the second phase of any of the simultaneous
4 operations is initiated.